FISHERIES
RESOURCE
CONSERVATION
COUNCIL

1999 Conservation Requirements for 2J3KL Cod

Report to the Minister of Fisheries and Oceans

FRCC.99.R.3
May 1999

Published and designed by:

Fisheries Resource Conservation Council
P.O. Box 2001
Station D
Ottawa, ON
K1P 5W3

Web Site: www.ncr.dfo.ca/frcc

© Minister of Public Works and Government Services Canada 1999

Cat. No. Fs1-61/7-1999E
ISBN 0-662-27925-5

Aussi disponible en français

101-02170/

Table of Contents

Letter to the Minister 5
Stock Recommendation : 2J3KL Cod 7

Appendices

FRCC Mandate and Membership 13
Letter to stakeholders and Questions for discussion at Consultations .. 19
Briefs received for consultations 25

LETTER TO THE MINISTER

May 27, 1999

The Honourable David Anderson, P.C., M.P.
Minister of Fisheries and Oceans
200 Kent Street
Ottawa, Ontario
K1A 0E6

Dear Minister:

At your request the Council delayed providing recommendations on the northern cod stock (2J3KL) to allow for a scientific peer review of an independent scientific analysis presented to the Council during consultations in March 1999. This peer review process has been completed and the Council was provided a copy of the group's report for use in our recent deliberations on 2J3KL cod.

Our deliberations on this stock were difficult this time, not because of the additional independent scientific analysis presented us, but because the data are inadequate as a basis for a scientific assessment and setting of a TAC for this stock. As noted in our report, there is little information on the coastal components, which currently comprise the majority of the stock biomass. It is, therefore, imperative that appropriate surveys be implemented immediately to assess the absolute abundance of cod in coastal regions.

It is also our view that total removals from this stock may be underestimated as a consequence of unreported landings and those removals must, therefore, be more closely monitored. While the independent study indicated substantially higher biomass levels in the coastal components, the peer review panel found that this analysis does not form a basis for assessment of the coastal portion of this stock.

There are significant uncertainties regarding the status of this stock. The geographic distribution of where we know there to be fish is far less than 50% of the geographic range for this stock. Based on catch rates, there are significant quantities in those small areas where we do know there are fish. With the uncertainties, the Council is moving in a precautionary manner from risk avoidance to risk management. However, in order to do justice to both the fishing communities and to the fish, a much-improved database to work from is a must for future years.

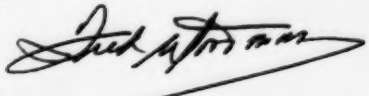
It should be pointed out, however, that not everything is bleak as the sentinel fishery catch rates are showing positive results and are much higher than commercial catch rates for the same gears pre-moratorium. Also, recruitment seems to be improving in the inshore areas.

The setting of a TAC for this stock cannot be done in a defensible scientific manner, as is the typical procedure the Council follows for other stocks. We have therefore provided a range for the TAC of between 6,000t and 9,000t. As well, we have made a number of other very specific recommendations, which are just as important as the TAC level. Many of these concern improving the scientific basis for future assessments.

The method we have chosen for setting the TAC for 1999 is regarded by the Council as a default method put forth only because of the unacceptable lack of quantitative data on the coastal biomass. The Council believes that it will be impossible to provide more specific TAC recommendations on this stock in future unless quantitative data are provided on coastal abundance.

Your Council is pleased to have this opportunity to present you with this advice and we trust you will find this helpful in your deliberations.

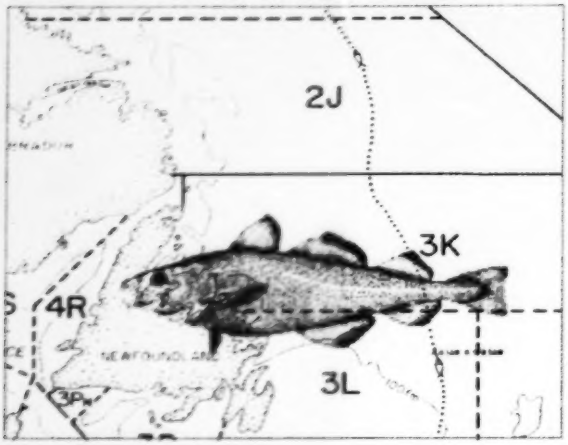
Sincerely,



Fred Woodman
Chairman

Stock Recommendation : 2J3KL Cod

3.2. Cod 2J3KL



History Of FRCC Recommendations:

In 1993, the Council indicated that this stock was at a very low level with poor recruitment prospects, and that a recovery of the spawning biomass was unlikely before the year 2000 at the earliest. The Council recommended that the moratorium on fishing 2J3KL cod be continued for 1994 and that strict limits be placed on food fisheries. In 1995, the Council emphasized the importance of the Sentinel Fishery in monitoring this stock during the moratorium. As in 1996 and 1997, the Council recommended in 1998 that the moratorium on this stock be continued. As part of the recommendations for 1998, the FRCC reiterated its 1997 recommendation that the sentinel fishery be expanded to include the offshore, and that additional financial resources be made available to carry out this program. Also, an index program be established with a maximum catch of 4,000t.

1999 Consultations:

Fishers reported that the sentinel fishery is reflective of their experience and knowledge. The program began in 1995 and now is a four year time series. Sentinel gillnet catch rates were increasing significantly over this period and were following this pattern from the coastal area including from White Bay through St. Mary's Bay. It was noted that there was an apparent low abundance in areas north of White Bay. Catch rates were very good to excellent compared to the reference level in the late 1980s. Gillnet catches per net were reported to be on average about 45 pounds during the late 1980s and are now ranging consistently over the

Recommendation :

The FRCC recommends that:

1.1 the TAC for 1999 be set between 6000 and 9000t to allow for a limited commercial fishery including a Sentinel fishery component for the coastal portions of 3L and 3K only, spread out over White Bay, Notre Dame, Bonavista, Trinity Bay, Conception Bay and the Southern Shore;

1.2 fishing be minimized during peak spawning periods and on spawning and pre-spawning concentrations, in both coastal and shelf locations (e.g., Hawke Channel, Virgin Rocks, Tobin's Point), and be at a low level in all seasons;

1.3 Smith Sound, Trinity Bay be closed to all commercial groundfishing and all gillnets;

1.4 a research plan be implemented immediately to conduct an acoustic survey of over-wintering and prespawning cod aggregations in coastal waters from southern 3L to 3K in 2000;

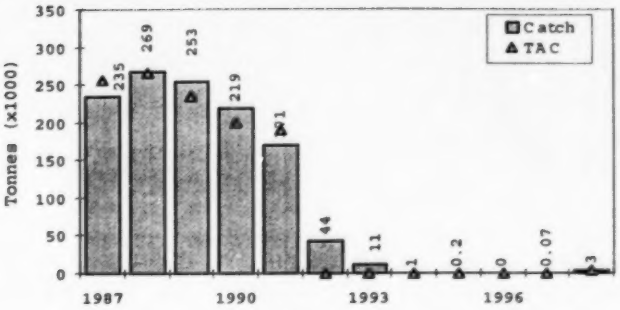
1.5 juvenile surveys of cod on the shelf and in coastal areas be continued with the goal of developing a recruitment index;

1.6 the sentinel program in 2J3KL begin as soon as possible, and not wait for future decisions on overall quota or TAC levels, and that it contain a tagging component in 3K and 3L;

1.7 additional financial resources be made available to carry out this program;

1.8 the shrimp fishery in 3K be closely monitored for by-catch, especially in the Hawke Channel; and

1.9 measures be implemented immediately to restrict the ability of fleet, through increases in mesh size, to target the 1989 and 1990 (i.e., age 10+) year classes as they move through the existing configuration of the fishery.



*1998 Catch: as of Dec 2/98

months from July through September at rates from approximately 100 pounds up to a high of about 900 pounds. These catch rates are reflective of the Sentinel Fishery from White Bay south to St. Mary's Bay. Catch rates of small fish were reported to be good, particularly in the most northern areas as evidenced by-catch rates in small mesh gillnets used in the Sentinel Fishery program. Fishers recommended an extensive tagging program to cover the entire inshore area of 2J3KL and that the tagging occur prior to the end of May 1999. Fishers were concerned that the science process does not incorporate their experience and the trends they observe.

Some fishers expressed concern over the lack of fish in the area north of White Bay. It was noted that many fishermen relied heavily on the harvest of cod from the 2J and northern 3K areas, or the northern part of the stock range, during many years of the northern cod fishery. There was a consensus view that cod in the offshore areas of 2J3KL are at an extremely low level. Many inshore fishers in areas 3KL are of the view that a commercial fishery is sustainable and should be established in 1999 at a level of 30-40,000t This view was not universal. Many fishers were of the strong view that any limited fishery in 1999 be allocated to small boat fishers (<35').

Many fishers expressed the view that the ecosystem is out of balance due to the growing populations of seals. They now report seeing seals year round in many areas where in the past seals were only seasonally present and in many areas where they had never been observed in the past. Fishers stated that seals are "belly-feeding" on cod eating only internal organs and many mature cod are being destroyed. Fishers recommended that immediate culling be authorized in areas were seals are observed to be destroying mature cod in large numbers. Fishers are strongly of the view that the balance of evidence is that the seal population must be reduced immediately in order for the cod resource to have a any chance of recovery.

ANALYSIS:

The 1999 DFO Stock Status Report indicates that:

- Biomass of shelf components of the stock remain near all time lows. There has been little improvement in stock biomass or age structure. The 1994 age class remains the strongest. Natural mortality remains high for all age classes. Few fish older than age 5 have been found in 3K and 2J in recent years.
- The coastal components are stronger and comprised of several relatively strong year classes, with the 1990 year class the strongest. Further south in 3L the 1989 year class is also strong, as in 3Ps. Mark-recapture experiments indicate a mean biomass of 52,000t in 3K and northern 3L, and an additional biomass of no more than 15,000t in southern 3L (an independent review of these estimates indicated significant bias could be present in these calculations).

COUNCIL'S VIEWS ON STOCK STATUS:

Overall indicator:	**very low; signs of improvement in 3L**
	Compared to average
Spawning biomass:	**very low**
Total biomass:	**very low**
Recruitment:	**poor on shelf; improving in coastal areas**
Growth/Condition:	**growth improving, condition good**
Age structure:	**poor on shelf; improving in coastal areas**
Distribution:	**improving in southern coastal areas, still abnormal**
Recent exploitation:	**low**

- Coastal and shelf stock components currently differ in age structure. There is also evidence of diversity in population level genetic structure across the northern cod complex
- Significant concentrations and spawning biomass of cod (15-20,000t) overwinters and spawns in Smith Sound, Trinity Bay, as measured by acoustic surveys.
- The only known spawning area on the shelf at present is in the Hawke Channel in 2J.
- Age at maturity remains low
- Mean weight at age for 5 year olds ..as increased in all regions from the lows of the early 1990s
- Sentinel gill net CPUE has increased by a factor of 3 since 1995 in 3KL
- Sentinel line trawl CPUE declined in 1998 after increases in previous years.
- Juvenile surveys indicate that the order of the year class strength is 94>95>98>97>96.
- Predation by seals has been a serious source of mortality of cod since the moratorium.

The FRCC makes the following observations in relation to this stock:

The data available and methods presented in the SSR are inadequate as a basis for a scientific assessment and setting of a TAC for this stock. In particular, there is little information on the coastal components, which currently comprise the majority of the stock biomass. It is imperative that appropriate surveys be implemented immediately to assess the absolute abundance of cod in the coastal region.

The only method that has proven successful in providing abundance estimates of cod in coastal Newfoundland waters has been acoustic surveys conducted during the prespawning and spawning period in winter and spring. Hence, it is recommended that a winter-spring acoustic survey be implemented in the year 2000 with the goal of estimating total coastal biomass. A fall acoustic survey is not recommended and should not be repeated.

Mark-recapture experiments may supplement acoustic estimates and provide an additional means of estimating biomass. However, to be effective, mark-recapture experiments must be based on adequate sample sizes and take into account patterns of fish mixing and the fishery. The FRCC recommends that a large scale tagging program be undertaken immediately in 2J, 3K and 3L. Sentinel fishermen should play a role in fish tagging. The FRCC does not accept the argument that only DFO technicians and other trained scientists are capable of tagging fish in an appropriate manner.

Total removals from this stock may be underestimated as a consequence of unreported landings. The FRCC believes that removals must be more closely monitored

The sentinel fishery data provide a useful index of stock distribution and may provide information on abundance. This program should be continued. The FRCC notes that gill net catch rates in 3L and 3K are as high as in 3Ps, and that small mesh surveys in the northern areas (2J) show increasing numbers of young fish, likely 1994 and younger year classes.

Independent studies indicated substantially higher biomass levels in the coastal components. These estimates have provided useful information on stock distribution and status, but as with the mark-recapture results, do not form a basis for assessment of the coastal portion of this stock. These studies were reviewed by an independent scientific panel outside the normal stock assessment process.

Genetic studies suggest that coastal populations in Conception, Trinity, and Bonavista Bays are not genetically distinct, nor do they differ from cod in Placentia Bay (3Ps). Coastal populations show broad scale dissimilarity from shelf components, but at smaller scales these dissimilarities are inconsistent. These differences are derived from statistical analyses of allele frequencies. Hence, individual fish from distinct putative populations may not differ. There is inconclusive evidence that differences are stable over time.

Smith Sound, Trinity Bay is the site of a large overwintering and spawning aggregation of cod. This aggregation may be key to the re-population of this area and perhaps beyond. It is very important that this aggregation be protected by a closure of directed fishing for groundfish in the sound.

The only known concentration of fish on the shelf occur in the region of the Hawke Channel in 2J. This concentration consists mainly of the 1994 year class, and with that year class now maturing at age 5, is the strongest possibility for a rebuilding of the shelf components. Hence, mortality from all sources must be kept as low as possible in this region. It is not known if these fish will begin to migrate shoreward at age 5, but to date no shoreward migration has been observed.

Fishermen have a wide range of views about the state of this stock. There is unanimous agreement only on

the shelf components, which are at all time lows. All surveys and industry reports are consistent with this view. Northern coastal components are also very depressed. However, there is disagreement on the state of southern (3K and 3L) coastal components. Many fishermen believe that these components have rebuilt sufficiently to allow for a much larger commercial fishery, exceeding 20,000t or perhaps even more. However, other fishermen are more cautious, and believe that while there are dense aggregations of cod in the coastal region, these aggregations are discrete and do not comprise sufficient biomass to sustain such a fishery.

The mark recapture analyses suggest that the mortality generated by the fishery in 1998 was of the order of 5%. The FRCC would regard this as an acceptable level of mortality given the rebuilding status of the stock complex and the goal of re-establishing a fishery.

The setting of a TAC for this stock cannot be done in a defendable scientific manner as is the typical procedure for FRCC stocks. This is especially difficult given the diverse views on this stock. Hence, the recommended strategy to re-establish a minimal fishery is to use a "rule of thumb" indicator based on the best estimates available, and to scale these with the sentinel catch rates. According to the sentinel gillnet fishery results the stock has expanded at a rate of about 1.52 per year. The expansion rate indicated by the line trawl sentinel fishery catch rates is more modest at a multiple of 1.03 per year.

We assume that the actual total removals in 1998 could be in the order of 6,000t. The extent of high catch rates in the fisheries suggests that cod may be more widespread and abundant in coastal areas than indicated in the SSR, and this view has been highlighted in an additional scientific study. This procedure indicates a TAC of between 6,000t and 9,000t. This procedure recognizes all sources of information from the SSR, additional scientific advice, the sentinel and index fisheries, and the views of fishermen and industry.

The method of setting the TAC is regarded by the FRCC as a default method put forth only because of the unacceptable lack of quantitative data on the coastal biomass. The FRCC believes that it will be impossible to provide future recommendations on this stock unless quantitative data are provided on coastal abundance.

Comments on Northern Cod

FRCC Recommendations:

The goal for this stock is to rebuild the full stock complex across the historic range from Hamilton Bank (2J) to the north Cape of the Grand Bank (3L), including both coastal and shelf spawning components. At present, most of the stock biomass occupies the coastal zone. There is increasing evidence of genetic substock structure within the northern cod stock complex, and that the existing aggregations may comprise distinct coastal populations. Indeed, the historical evidence for "seeding" of the more northerly coastal and shelf regions by coastal cod is not compelling. Nevertheless, stock expansion cannot be ruled out, has been observed in other fish stocks, and is considered to be more likely at larger stock sizes. Hence, the FRCC believes that in keeping with the overall goal for this stock, room for growth in existing populations must be encouraged. Another consideration is that shelf components historically migrated to the coastal zone in spring and summer. Indeed, this migration supported the large coastal fishery since the mid-1500s. The rebuilding of these shelf components is critical to the long-term prosperity of coastal communities and will depend on the lowest possible mortality rates being inflicted on these migratory stock components. Hence, the potential effects of a mixed-stock summer coastal fishery on the rebuilding shelf components must be acknowledged.

The FRCC also recognizes the importance of re-establishment of a small vessel coastal fishery in Newfoundland, in terms of the continuance of fishing skills and economic patterns, and the provision of scientific data through catch reporting and tag returns. Ideally, we might not fish at all as the best rebuilding strategy. However, the advantages of reopening a limited fishery are compelling. For example, the provision of data on distribution, catch rates, and age structure can benefit from a fishery. A tagging program requires a fishery. The FRCC believes that the sentinel fishery in particular must be continued and that, furthermore, all removals from this stock complex must be utilized to the maximum extent possible in terms of improving knowledge, and does not support removals that do not.

APPENDIX 1:

FRCC MANDATE AND MEMBERSHIP

APPENDIX 1:FRCC TERMS OF REFERENCE AND MEMBERSHIP

1. INTRODUCTION

The Government of Canada is committed to a more comprehensive approach to the conservation and management of our fisheries resource. This approach demands a better understanding of complex fisheries ecosystems - the interaction of fish with other species, predator-prey relationships, and also changes in the marine environment like ocean currents, water temperatures and salinity.

The Government of Canada is also committed to a more effective role in decision-making for those with practical experience and knowledge in the fishery.

The Minister of Fisheries and Oceans has established the Fisheries Resource Conservation Council (FRCC) as a partnership between government, the scientific community and the direct stakeholders in the fishery. Its mission is to contribute to the management of the Atlantic fisheries on a 'sustainable' basis by ensuring that stock assessments are conducted in a multi-disciplined and integrated fashion and that appropriate methodologies and approaches are employed; by reviewing these assessments together with other relevant information and recommending to the Minister total allowable catches (TACs) and other conservation measures, including some idea of the level of risk and uncertainty associated with these recommendations; and by advising on the appropriate priorities for science.

2. DEFINITION OF CONSERVATION

Fisheries conservation is that aspect of the management of the fisheries resource which ensures that its use is sustainable and which safeguards its ecological processes and genetic diversity for the maintenance of the resource. Fisheries conservation ensures that the fullest sustainable advantage is derived from the resource and that the resource base is maintained.

3. COUNCIL OBJECTIVES

3.1 To help the government achieve its conservation, economic and social objectives for the fishery.The conservation objectives include, but are not restricted to:

3.1.1 rebuilding stocks to their 'optimum' levels and thereafter maintaining them at or near these levels, subject to natural fluctuations, and with 'sufficient' spawning biomass to allow a continuing strong production of young fish; and,

3.1.2 managing the pattern of fishing over the sizes and ages present in fish stocks and catching fish of optimal size.

3.2 To develop a more profound understanding of fish-producing ecosystems including the inter-relationships between species and the effects of changes in the marine environment on stocks.

3.3 To review scientific research, resource assessments and conservation proposals, including, where appropriate, through a process of public hearings.

3.4 To ensure that the operational and economic realities of the fishery, in addition to scientific stock assessments, are taken into account in recommending measures to achieve the conservation objectives.

3.5 To better integrate scientific expertise with the knowledge and experience of all sectors of the industry and thus develop a strong working partnership.

3.6 To provide a mechanism for public and industry advice and review of stock assessment information.

3.7 To make public recommendations to the Minister.

4. Mandate and Scope

4.1 The Fisheries Resource Conservation Council will address these objectives by bringing together industry, DFO science and fisheries management, and external scientific and economic expertise in one body.

4.2 The Council will:

4.2.1 advise the Minister on research and assessment priorities;

4.2.2 review DFO data and advise on methodologies;

4.2.3 consider conservation measures that may be required to protect fish stocks;

4.2.4 review stock assessment information and conservation proposals, including through public hearings, where appropriate; and,

4.2.5 make written public recommendations to the Minister on TACs and other conservation measures.

4.3 The Council may recommend any measures considered necessary and appropriate for conservation purposes such as TACs, closure of areas to fishing during specific periods, approaches to avoid catching sub-optimal sized fish or unwanted species, and restrictions on the characteristics or use of fishing gears.

4.4 The Council's scope includes Canadian fish stocks of the Atlantic and Eastern Arctic Oceans. In the first instance, the Council will address groundfish, and then subsequently take on responsibility for pelagic and shellfish species.

4.5 The Council is also responsible for advising the Minister on Canada's position with respect to straddling and transboundary stocks under the jurisdiction of international bodies such as the Northwest Atlantic Fisheries Organization (NAFO).

5. Size, Structure and Make-Up

5.1 The Council will consist of not more than 14 members with an appropriate balance between 'science' and 'industry'.

5.2 Members are chosen on merit and standing in the community, and not as representatives of organizations, areas or interests.

5.3 'Science' members, are drawn from government departments, universities or international posts, and are of an appropriate mix of disciplines, including fisheries management and economics.

5.4 'Industry' members are knowledgeable of fishing and the fishing industry and understand the operational and economic impacts of conservation decisions.

5.5 All members of the Council are appointed by the Minister.

5.6 All members, including the Chairperson, are appointed for a three year term; terms can be renewed.

5.7 Members appointed from DFO serve 'ex officio'.

5.8 Members have to disclose any interest in the Atlantic or Eastern Arctic fishery and take appropriate measures so as to avoid potential or real conflict of interest situations during the term of appointment.

5.9 The four Atlantic Provinces, Quebec and the Northwest Territories may each nominate one delegate to the Council. These delegates have access to the Council's information, and may participate fully in meetings, but will not be asked to officially endorse the formal recommendations to the Minister.

5.10 The Council is supported by a small Secretariat, to be located in Ottawa. The Secretariat will:

5.10.1 provide administrative support for the functioning of the Council;

5.10.2 provide a technical science and fisheries management support;

5.10.3 organize Council meetings;

5.10.4 record decisions of the Council;

5.10.5 undertake a professional communications function for the Council, providing a central point for communications to and from the Council; and

5.10.6 undertake such other matters as from time to time might be appropriate.

5.11 The Chairman may appoint an Executive Committee, consisting of the Chairman, Vice-Chairman, and three other Members.

5.12 In addition, the Chairman may, from time to time, strike an 'ad hoc' committee to deal with a specific issue.

6. ACTIVITIES:

6.1 Reviews appropriate DFO science research programs and recommends priorities, objectives and resource requirements.

6.2 Considers scientific information - including biology, and physical and chemical oceanography, taking into account fisheries management, fishing practices, economics and enforcement information.

6.3 Conducts public hearings wherein scientific information is presented and/or proposed conservation measures/options are reviewed and discussed.

6.4 Recommends TACs and other conservation measures.

6.5 Prepares a comprehensive, long-term plan and a work plan for the Council which are reviewed annually at a workshop with international scientists and appropriate industry representatives.

6.6 Ensures an open and effective exchange of information with the fishing industry and contributes to a better public understanding of the conservation and management of Canada's fisheries resource.

FRCC MEMBERSHIP:

MEMBERS:

Fred Woodman, Chairman
Jean-Claude Brêthes, Vice-Chair
Osborne Burke
Bruce Chapman
Ernest Després
Jean Guy d'Entremont
Gabe Gregory
Frank Hennessey
Dan Lane
Edward McAlduff
John Pope
George Rose
Louis Schofield
Trevor Taylor
Maureen Yeadon

PROVINCIAL DELEGATES:

Stephen Atkinson, Northwest Territories
Mario Gaudet, New Brunswick
David Gillis, Prince Edward Island
Dario Lemelin, Québec
Tom Dooley, Newfoundland and Labrador
Clarrie MacKinnon, Nova Scotia

EX OFFICIO:

Guy Beaupré
William Doubleday
Barry Rashotte

SECRETARIAT:

Chris J. Allen, A/Executive Director
Andrée-Anne Guibord
Tracey Sheehan
Debra Côté
Denis Rivard
Lisa Tenace
Marny Brown

NEWFOUNLAND GROUNDFISH ASSESSMENT TEAM:

Fred Woodman, Chair
Jean Guy d'Entremont
Gabe Gregory
Frank Hennessey
Dave Lewis
Edward McAlduff

APPENDIX 2:

LETTER TO STAKEHOLDERS AND QUESTIONS FOR DISCUSSION AT CONSULTATIONS

APPENDIX 2: LETTER TO STAKEHOLDERS

March 9, 1999

LETTER TO STAKEHOLDERS:

The Fisheries Resource Conservation Council (FRCC) will hold public consultations to gather information from stakeholders on Gulf of St Lawrence groundfish stocks and both 3Ps and 2J3KL cod. This information will assist the Council in making recommendations to the Minister of Fisheries and Oceans for 1999 conservation requirements.

FRCC teams will hold consultations at 9:00AM in the following locations:

APRIL 6	GASPÉ, QC (*QUALITY INN*) PORT-AU-CHOIX, NF (*TOWN COUNCIL OFFICE*)
APRIL 7	ILES DE LA MADELEINE, QC (*AUBERGE MADELI*) PORT-AUX-BASQUES, NF (*ST. CHRISTOPHER'S HOTEL*)
APRIL 8	MONCTON, NB (*HOTEL BEAUSÉJOUR*) GRAND FALLS, NF (*MOUNT PAYTON INN*)
APRIL 9	PORT HAWKESBURY, NS (*NAUTICAL COLLEGE*) CLARENVILLE, NF (*WINTER GAMES COMPLEX* - 2J3KL COD, 9:00AM; 3PS COD, 1:00PM)

Discussion will center around cod stocks in 2J3KL, 3Ps, 4RS3Pn, and 4TVn, 4T American plaice, 4T white hake, 4T yellowtail flounder, 4T winter flounder, 4RST witch flounder, 4RST Greenland halibut, and 4RST Atlantic halibut. To help focus the discussion, the FRCC has prepared a series of questions attached for your consideration. Stakeholders are invited to make public presentations by way of oral presentation or by providing a written brief to the FRCC at P.O. Box 2001, Station D, Ottawa, ON K1P 5W3, (613) 998-0433 phone, (613) 998-1146 fax, or info@frcc.x400.gc.ca. Written submissions should be provided by April 9 as the Council will be formulating its advice to the Minister the following week.

The Council has asked DFO Science to present its current assessments for these stocks at the consultations. The meetings will give stakeholders an opportunity to comment on these stocks prior to forming its advice to the Minister.

As always, the views of stakeholders are important to the FRCC and we hope you will participate fully.

Fred Woodman
Chairman

Questions For Discussion At Consultations

2J3KL cod

What were your observations from the Index Fishery in 1998 (catch rates, size and condition of fish)? Were the fish where you expected to find them (traditional grounds) or elsewhere? Did you have any problem in catching your quota? Did you observe seals in your area? If so, were they more or less abundant than in 1997 and did they stay longer?

Based on sentinel and index fisheries and offshore surveys there is not good geographical distribution of cod in 2J3KL. What would be the long-term impact of a limited commercial or index fishery on the sustainability of the resource, particularly if catches were primarily from the southern portion of the stock range?

3Ps cod

In 1998, were cod more or less abundant than in 1997? How did your catch rates compare? What was the size and condition of fish? Was there good geographical distribution of your catch? Did you observe seals in your area? If so, were they more or less abundant than in 1997?

4TVn cod

Opportunities to observe the cod resource in 1998 were limited to sentinel, index and recreational fisheries and restrictive bycatches in other directed fisheries. On the basis of these indicators, what comments do you have regarding distribution of the resource, size run in the catches, indications of incoming recruitment, physical condition of the fish and the presence of prey/bait species for cod?

4RS,3Pn cod

From the limited commercial fishery in this area, what have you observed, particularly in regards to distribution of the resource, size run in the catches, indications of incoming recruitment, physical condition of the fish and presence of prey/bait species for cod?

4T white hake

Opportunities to observe the hake resource in 1998 were limited to sentinel, index and recreational fisheries and restrictive bycatches in other directed fisheries. On the basis of these indicators, what comments do you have regarding distribution of the resource – any observations on catches of hake in areas other than St. Georges Bay, size run in the catches, indications of incoming recruitment, physical condition of the fish, presence of prey/bait species for hake and any observations on catches of juveniles?

4T American plaice

In recent seasons it has been reported that catch rates remain at or near traditional levels in some grounds (principally in the eastern portion of 4T) and are sharply reduced from traditional levels at other locations (principally in the western portion of 4T). Survey results show the same pattern. What are your observations regarding the distribution of the resource in 1998? To what extent do bycatch restrictions on cod interfere with your ability to target plaice? What was the physical condition of the fish observed in the 1998 fishery?

4T winter flounder

Recent catch rates and survey results both indicate that the abundance and status of this resource varies between different parts of 4T. What were your observations regarding distribution and abundance in 1998? Was there any

further re-direction of effort toward winter flounder in 1998? Many fishermen believe there to be distinct stocks of flounder in 4T. What suggestions do you have for what areas may be distinct? Any suggestions for additional research work?

4RST WITCH FLOUNDER

Fishermen reported large catches in the autumn of 1998. There were quota over-runs due to high catch rates. What were fishermen observing and where? ? Also what observations do you have regarding size of the fish, etc?

4RST ATLANTIC HALIBUT

What observations do you have regarding the state of this stock? What size, stock distribution, etc. have you observed?

4RST GREENLAND HALIBUT

In your experience what is the status of this stock in comparison to the fishery in the past ten years? How do catch rates per net compare in 1998 to past years when the fishery was conducted with 5.5-inch mesh as opposed to the current 6-inch mesh size? Should the mesh size be increased beyond 6 inches?

RECREATIONAL FISHERY

The recreational fishery has been very controversial. In your opinion should this type of fishery be permitted to continue in areas where there is no directed commercial fishery?

SCIENCE

The FRCC is mandated to provide the Minister of Fisheries and Oceans with recommendations on DFO science priorities. Are there specific issues you feel that need to be addressed, as research priorities, for the above stocks or any other groundfish stocks in the Gulf of St. Lawrence or Newfoundland? Are there priorities that you believe industry and Science can work on in partnership? How can the sentinel fishery be improved to provide additional information for Science?

APPENDIX 3:

BRIEFS RECEIVED FOR CONSULTATIONS

APPENDIX 3: BRIEFS RECEIVED FOR CONSULTATIONS

Briefs Received at Consultations

FRCC.99.GR.NF.13	Mr. Winston Mercer, Chairman - Fishermen's committee, Upper Island Cove, Nfld.
FRCC.99.GR.NF.14	Fisherman's Committee of Coachman's Cove, Nfld.
FRCC.99.GR.NF.23	Earle McCurdy – Fish, Food and Allied Workers Union
FRCC.99.GR.NF.25	Brian Phillips – Inshore Fishermen's Improvement Committee
FRCC.99.GR.NF.26	Thomas E. Best, Co.Chair – Eastern Avalon/Southern Shore <35' Vessels Fish Harvesters Association
FRCC.99.GR.NF.27	John Hewitt, Fishing Industry Representative – Irish Loop Regional Economic Development Board
FRCC.99.GR.NF.28	The Southern Shore Fish Harvesters Action Committee
FRCC.99.GR.NF.29	Brian Walsh – Coalition of Under 35 ft. Concerned Fishermen's Committee for 3L Area
FRCC.99.GR.NF.30	Hayward Pike – Charleston, Nfld.
FRCC.99.GR.NF.31	Bill Broderick, Fisherman – St. Brendans, Bonavista Bay, Nfld.
FRCC.99.GR.NF.32	Dr. George Winters – Focus Technologies Inc.
FRCC.99.GR.NF.37	Earle McCurdy – Fish, Food and Allied Workers Union

Briefs Received by Mail

FRCC.99.GR.NF.5	Dawson Martin, Fisherman, Bonavista, Nfld.
FRCC.99.GR. NF. 7	Austin Zucker, Fisherman, English Harbour, Nfld.
FRCC.99.GR.Nf.43	Industry Results from Area 3L Offshore Surveys, Northern.(2J3KL) Nfld.
FRCC.99.GR.NF.44	Indusrty Results from Areas 2J and 3K Offshore Surveys Nfld.
FRCC.99.GR.NF.45	Capt. Wilfred Barltett, Brighton, Nfld.

200 Mile Fishing Zone and NAFO Fishing Boundaries